Application No. 09/919,561
Filed: July 31, 2001
TC Art Unit: 1774
Confirmation No.: 4967

REMARKS

Claims 4-6 are pending in the present application. Claim 6 is canceled, without prejudice. Claims 4-5 are amended herein. New claims 7, 8 and 9 are added herein. Accordingly, claims 4-5 and 7-9 will be pending upon entry of the instant amendments.

Support for the amended claims can be found throughout the specification and encompassed by the scope of the claims as originally filed. In particular, support for the amendment to claims 4-5 can be found at least, for example, from original claim 6 and starting on page 2, line 23, to page 3, line 1, of the specification. Additionally, the amendment to claim 4 has been made to respond to the 35 U.S.C. §112, second paragraph, rejection as further explained below. Support for the new claims 7, 8 and 9 can be found at least, for example, on page 2, line 25, and in Fig. 1 of the specification. No new matter has been added.

Any amendments to the claims should in no way be construed as acquiescence to any of the Examiner's rejections and were done solely to expedite the prosecution of the application. Applicant reserves the right to pursue the claims as originally filed in this or a separate application(s).

Claim Rejection - 35 U.S.C. §112

Claim 4 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the language "as a binder 1 to 99 weight %." Applicants have amended claim 4 herein to overcome the rejection. Applicants consider that claim 4 is now clear and definite.

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

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Claim Rejection - 35 U.S.C. §103

Claims 4-6 remain rejected under 35 U.S.C. §103(a) as being obvious over Keller (U.S. Application 2002/0007900) or Gassner (U.S. Patent 6,027,608), each in view of Kean et al. (U.S. Patent 5,491,186).

Applicants respectfully traverse the rejection.

The claimed invention, as currently amended, is directed to a thermal insulator that comprises 50 to 90 weight % of a natural feathered fiber and 10 to 50 weight % of a core sheath composite synthetic fiber as a binder, where both percentages are relative to the total weight of the insulator. The claimed invention further comprises a method of making a thermal insulator, in part, by providing a 1 to 99 weight % of a natural feathered fiber and 1 to 99 weight % of a core sheath composite synthetic fiber as a binder, where each of the percentages are relative to the total weight of the insulator and where the combination provides thermal insulation. Applicants consider that neither Keller nor Gassner, either alone or in combination with Kean et al., can make the invention obvious.

Keller in view of Kean et al.

Keller describes a composite feather filament material that is useful in vehicle interior trims and for acoustical insulation (*see* page 1, paragraph 0002). While the insulation material consists of barbs or filaments of feathers, Keller's invention is plainly directed only to acoustical insulation - "fibers having physical features of acoustic impedance as necessitated by the ultimate use or end product" (p. 1, ¶ 0018). Keller fails to

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

teach or suggest using barbs or filaments of feathers for thermal insulation.

Moreover, Keller describes certain ratios of feather fibers to thermoplastic binders having a range from 1:1 to 1:10 by weight (p. 1, ¶ 0018). Thus, Keller's composition is rich in binder (having a concentration ranging from 50 to about 90% in weight). No teaching or suggestion of the invention that is directed to thermal insulation can be gleaned from Keller since the enrichment of binder in the composition causes heavy insulation for the specific use of sound or sonic insulation. In contrast, the present invention provides a thermal insulation material where the natural feather fibers of the invention are 50 to 90 weight % of the total weight of the thermal insulator (claims 4-5). No motivation can be inferred or is explicitly described in Keller to develop a good thermal insulator as claimed in the present invention.

Keller also fails to teach or suggest the method steps (claims 7-9) as currently claimed in the present invention. Keller is absolutely silent with respect to the specific method steps in order to generate a thermal insulator, as claimed. Therefore, Keller cannot make the invention obvious.

Kean et al. fails to cure the deficiencies found in Keller. Kean et al. describes a bonded insulation batt for thermal and acoustical insulation. The batt comprises a secondary cellulose fiber, a binder fiber and optionally, a lofting fiber (see Abstract and column 3, lines 1-4, of the '186 patent). The Examiner asserts that Kean et al. is relied upon for knowledge in the art that sheath/core binder fibers may be used in the

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

formation of insulation products. However, Kean et al., with or without Keller's deficiencies, does not suggest nor teach the claimed invention. Kean et al. fails to teach or suggest a thermal insulator having a combination of natural feather fibers and a core sheath composite synthetic fiber in the specific combination as claimed in claim 4. Kean et al.'s batt has different properties with different components. Furthermore, Kean et al. is absolutely silent with respect to a method of making a thermal insulator using the process steps as claimed in the present invention. No motivation can be gleaned from either Keller or Kean et al. to make the suggested combination using the teachings from each other since Keller already describes the use of a synthetic fiber for acoustical purposes. One of ordinary skill in the art upon reading Keller and/or Kean et al. would not make the suggested combination. Accordingly, Applicants assert that Keller, either alone or in combination with Kean et al., cannot make the invention obvious. Reconsideration and withdrawal of the foregoing rejection is respectfully requested.

Gassner in view of Kean et al.

Gassner discloses a process for converting poultry feather-waste into useful products such as fiber, protein and oil using a batch system wash in a polar organic solvent solution (see column 2, lines 31-34, of the '608 patent). While Gassner superficially indicates that fiber fractions can be used as "fillers and insulation," Gassner fails to teach or suggest the claimed invention such that an ordinary skilled artisan can come up with and practice the invention successfully. The claimed invention

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

provides a thermal insulation with 50 to 90 weight % of a natural feather fiber in combination with a 10 to 50 weight % of a core sheath composite synthetic fiber as a binder. None of these specific components of the entire invention is either suggested or taught in Gassner.

Moreover, an exemplary preparation of insulation from fiber pulp in Example 5, column 11, of Gassner is similarly directed to acoustical dampers. Such sonic insulation requires mass or weight to prevent oscillation of sound. In contrast, the presently claimed invention is directed to a natural feathered fiber insulation that is lightweight. Gassner's sonic insulation would not be suggestive of the thermal insulation of the present invention as claimed.

Kean et al. fails to cure the deficiencies found in Gassner. No motivation can be inferred from Gassner to make the suggested combination using the teachings of Kean et al. for a thermal insulation as claimed. As previously argued, Kean et al. alone cannot teach or suggest the claimed invention since Kean et al. is directed to a cotton fiber. Accordingly, Applicants consider that Gassner, either alone or in combination with Kean et al., fails to teach or suggest the claimed invention, and reconsideration and withdrawal of the foregoing rejection is respectfully requested.

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
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CONCLUSION

Based on the foregoing, entry of the amendments and remarks presented herein, reconsideration and withdrawal of all the rejections and allowance of application with all pending claims are respectfully requested.

The Examiner is encouraged to telephone the undersigned attorney to discuss any matter, which would expedite allowance of the present application.

Respectfully submitted,

KAZUSHIGE YOSHIOKA ET AL.

By: _____
Charles L. Gagnebin III
Registration No. 25,467
Attorney for Applicant(s)

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
Ten Post Office Square
Boston, MA 02109
Telephone: (617) 542-2290
Telecopier: (617) 451-0313

CSK/knr
298435-1

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313